



**NRL BAA Announcement  
# 74-09-01**

**AIRBORNE AND SHIPBOARD DATA ACQUISITION AND ANALYSIS**

The Marine Physics Branch (Code 7420) of the Naval Research Laboratory (NRL) is interested in receiving proposals for research and development in the areas of sensor technology, data acquisition, and data analysis in the field of fixed sensor, airborne and shipboard remote sensing.

The primary areas of interest are gravity and inertial measurements, ocean acoustic data, GPS navigation and radar/laser profilometry. This research may involve new techniques in non-traditional beam forming and signal discrimination for the purpose of synthesizing acoustic arrays from randomly emplaced acoustic sensors.

The research may involve new and innovative research in long-range kinematic differential GPS navigation with a goal of producing decimeter level positioning of aircraft for baseline lengths of up to 1,000 kilometers. The research may also involve new methods of acoustic modeling combining the water column with sub-bottom acoustic characteristics in both shallow and deep-water regions.

Code 7420 particularly desires proposals on innovative techniques for:

- 1) Real-time acquisition and storage of data at high rates from numerous sensor channels;
- 2) Real-time high-speed data analysis and display; and
- 3) Optimal combined processing of multi-sensor data.

Address White Papers (WP) to Code 7421, or [e-mail](#) telephone (202) 404-4346. Allow one month before requesting confirmation of receipt of WP, if confirmation is desired. Substantive contact should not take place prior to evaluation of a WP by NRL. If necessary, NRL will initiate substantive contact.